REMARKS

Claims 1-3, 6, 7, 10-13, 16, 17 and 20 are pending in the application. Claims 1-3, 6, 7, 10-13, 16, 17 and 20 stand rejected. Claims 1, 7, 11, and 17 are amended. No new matter is added. Applicant respectfully requests reconsideration in view of the amendment and further in view of the following remarks.

Rejection Under 35 U.S.C. §102(b) over Knox et al.

The Examiner has rejected claims 1-3, 6-7, 10-13, 16-17 and 20 under 35 U.S.C. 102(b) as allegedly being anticipated by Knox et al., U.S. Pat. No. 4, 927,669.

The Examiner finds that Knox et al. discloses adding maleated fatty acids neutralized with imidazoline (amine) to a fluid in an amount of 750 and 6000 ppm of said fluid. The drag reducing function and an amount of the additive effective to reduce drag would allegedly been inherent to the methods and compositions of Knox et al. since the methods and compositions are contended to read on and otherwise anticipated by the additive and the addition thereof, i.e., method steps and concentrations read on their use as corrosion inhibitor. The Examiner finds that the instant claims do and the instant disclosure does not preclude the inherent function of the instant claims from the ability to perform a corrosion inhibiting function as well as a drag reducing function.

The Examiner additionally contends that the relationship of the drag reduction as a function of concentration would have been expected to have at least a minimum threshold to function, which would be above 100 ppm as the lower limit claimed. The Examiner asserts that the relationship would be expected result in decreasing drag with increasing agent concentration to a maximum threshold. The Examiner notes that the claims require a reduction in drag and an effective amount to achieve said reduction. Since the reference adds the same agent at the upper end of Applicants' concentration range, the Examiner alleges that it is reasonable to conclude that said concentration is inherently an effective amount to reduce drag.

To the extent the 750 ppm does not include the amount of imidazoline base, the Examiner asserts that a stoichiometric amount of imidazoline base (MW ~70) would result for a maleated fatty acid (MW ~400) in a concentration of less than 1000

ppm claimed (750 gm/kg / 400 gm/mol MW Acid x 470 gm/mol Acid + Base ~880 ppm.

The Applicants must respectfully traverse.

A patent claim is anticipated, and therefore invalid, only when a single prior art reference discloses each and every limitation of the claim. *Glaxo Inc. v. Novopharm Ltd.,* 52 F.3d 1043, 1047, 34 U.S.P.Q.2d 1565 (Fed. Cir.), *cert. denied,* 116 S.Ct. 516 (1995).

The Applicants would respectfully direct the Examiner's attention to the amendments to all of the independent claims herein 1, 7, 11, and 17, from which all other claims depend and incorporate by reference, where the methods now recite *continuously* adding the additive to the fluid and the compositions recite the additive being *continuously* added.

Support for these amendments is found in the application as filed, page 3, lines 12-16, paragraph [0013]: "*The drag reducing methods of the invention comprise applying maleated fatty acids or its esters and salts to the system by* either batch or *continuous treatments* at high enough concentrations to produce the desired reduction in drag and/or increase in flow for the same amount of motive energy." (Emphasis added.) The Examiner's attention is additionally respectfully directed to the application as filed at page 7, lines 1-7, paragraph [0023]:

> **[0023]** The *preferred manner of practicing the invention is* batch treatment between two pigs or *continuous treatment* at the well head or pipeline through umbilical or capillary. In the *continuous treatment*, the product solution is used at high enough concentration to produce the desired drag reduction without causing emulsion, foaming or other oil/water quality problems. (Emphasis added.)

Thus, it is respectfully submitted, the amendments to the claims do not constitute an improper insertion of new matter.

By contrast, however, Knox et al. does not teach or suggest the continuous addition of their oil field corrosion inhibitor. This is because Knox et al. only teaches methods and compositions for corrosion inhibition, not methods and compositions for drag reduction. As previously established, drag reduction is not mentioned at all in

the reference. Knox et al. follows the conventional corrosion inhibiting treatment method of initially adding large, batch amounts of corrosion inhibitor package to form a film. The examples therein involve such single additions and then measuring film persistency, which is a corrosion inhibition characteristic. The Examiner's attention is respectfully directed to column 3, lines 27-46 of Knox et al.:

> A typical corrosion inhibitor package will consist of 12.5 parts fatty acid derivative component, 12.5 parts of fatty acid imidazoline (e.g., Witcamine 209 or 211), one to two parts calcium dodecylbenzene sulfonate with the remainder being a heavy aromatic naptha solvent. The bottles are sparged for several minutes with CO_2 (In sour (H_2S) environments this is not done.), and equal amounts of kerosene and salt water are then added along with an oxygen scavenger (e.g., ammonium bisulfite). The bottles are then capped, put into a wheel oven and rotated through 360° to insure that each end of the metal coupon is exposed to both aqueous and oil environments. This treatment is done for one to two hours at 150°F., and then the coupons are removed *and placed in a second set of bottles containing kerosene/salt water.* These bottles are rotated for one hour; the coupons are removed a second time and *again placed in a kerosene/salt water mixture* and rotated at 150°F. for 22 hours *to test for ultimate film persistency.* (Emphasis added.)

It should be noted that after the initial contact with the "typical corrosion inhibitor package", the coupons are twice more placed in contact with a kerosene/salt water mixture without additional corrosion inhibitor added. As stated in the last sentence quoted, this is to test the "ultimate film persistency".

It is respectfully noted that the amounts given in Table I of Knox et al. noted by the Examiner are these initial, one-time, batch, single dosage amounts consistent with customary corrosion inhibition procedures, and are not continuous applications as presently claimed. The Applicants respectfully note that there is no teaching or suggestion in Knox et al. that the corrosion inhibitors therein are added continuously to the fluids treated. As such, since the single prior art reference does not disclose each and every limitation of the claim, the rejection must fall. Reconsideration is respectfully requested.

Double Patenting Rejection

The Examiner contends that claims 1-3, 6-7, 10-13, 16-17 and 20 are directed to an invention not patentably distinct from claims 1-2, 4-5, 6, 8-10, 12-14, and 16 of U.S. Patent No. 6,774,094 of Jovancicevic, et al. currently commonly assigned to Baker Hughes Incorporated. Specifically, the Examiner alleges that the claims are generic to the use of polycarboxylic acids and salts thereof.

The Examiner notes that the U.S. Patent and Trademark Office normally will not institute an interference between applicants or a patent and an application of common ownership. The Examiner admits that U.S. Patent No. 6,774,094 to Jovancicevic, et al. does not qualify as prior art under 35 U.S.C. §102(e). The Examiner finds that commonly assigned U.S. Patent No. 6,774,094 to Jovancicevic, et al. would form the basis for a rejection of the noted claims under 35 U.S.C. §103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. §102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the Examiner to resolve this issue, the assignee can, under 35 U.S.C. §103(c) and 37 CFR §1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. §103(a) based upon the commonly assigned case as a reference under 35 U.S.C. §102(f) or (g) or (e) for applications filed on after November 29, 1999, such as this one.

The Applicants would respectfully traverse.

The Applicants would respectfully direct the Examiner's attention to the following Statement by and for the Assignee:

STATEMENT

Subject Application No. 09/944,835 and U.S. Pat. No. 6,774,094 were, at the time of the invention of Application No. 09/944,835, owned by Baker Hughes Incorporated.

Although this Statement alone is sufficient evidence according to MPEP §706.02(l)(2)II, in an abundance of caution, Applicants are submitting herewith copies of the recorded assignments for subject application No. 09/944,835 (and corresponding provisional application no. 60/285,506) and for U.S. Pat. No. 6,774,094 (and corresponding provisional application no. 60/286,228). It is respectfully submitted that this showing thus precludes a rejection under 35 U.S.C. §103(a) based upon the commonly assigned case as a reference under 35 U.S.C. §102(f) or (g) or (e). It is respectfully requested that the subject rejection be withdrawn. Reconsideration is respectfully requested.

Rejection Under Judicially Created Doctrine of Obviousness-Type Double Patenting

The Examiner has rejected claims 1-3, 6-7, 10-13, 16-17 and 20 under the judicially created doctrine of obviousness-type double patenting as allegedly being unpatentable over claims 1-2, 4-5, 6, 8-10, 12-14, and 16 of U.S. Patent No. 6,774,094 of Jovancicevic, et al. in view of Knox et al. The Examiner finds that US '094 discloses and claims methods and fluids for drag reduction. The US '094 claims are seen as generic to the use of polycarboxylic acids, which would include maleated fatty acids. US '094 (column 4, lines 21 et seq.) is found to disclose derivatives of the fatty acids, soaps of the fatty acids, and those used in corrosion inhibition as useful drag reducing agents.

To the extent the claims differ in the explicit disclosure of the use of the maleated fatty acid derivatives or the specific fatty acid derivatives claimed, admitted by the Examiner, Knox et al. is seen to disclose the use of maleinized fatty acids, dimer/trimer fatty acids, and mixtures thereof with imidazoline for the advantage of corrosion inhibition. Corrosion inhibition is noted in the US '094 and is clearly related art – even though the Examiner has previously admitted that US '094 does not qualify as prior art under 35 U.S.C. §102(e).

The Examiner contends that these references are combinable because the teach polycarboxylic acid derivatives as additives in oil/water systems. The Examiner alleges that it would have been obvious to one having ordinary skill in the art at the

time of Applicants' invention to employ the maleinized fatty acids with imidazoline for dimer/trimer fatty acids explicitly set forth in the US '094 document as an allegedly obvious functional equivalent known in the oil/water system additive fields at the time of Applicants' invention.

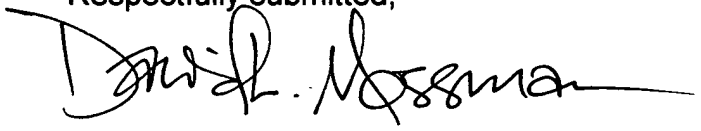
The Applicants would respectfully traverse.

It is respectfully noted that the Examiner has previously admitted that US '094 does not qualify as prior art under 35 U.S.C. §102(e).

Nevertheless, in the interest of expediting prosecution of the subject application, the Examiner's attention is respectfully directed to the enclosed Terminal Disclaimer to obviate the obviousness-type double patenting based on the US '094 patent. In view of this disclaimer, it is respectfully submitted that the subject rejection is rendered moot. Reconsideration is respectfully requested.

It is respectfully submitted that the amendments and arguments presented above overcome all of the rejections. Reconsideration and allowance of the claims are respectfully requested. The Examiner is respectfully reminded of his duty to indicate allowable subject matter. The Examiner is invited to call the Applicants' attorney at the number below for any reason, especially any reason that may help advance the prosecution.

Respectfully submitted,



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